UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,929	11/16/2000	Hideki Tai	JP919990195	4074

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EXAMINER
HOSSAIN, TANIM M

ART UNIT	PAPER NUMBER
2145	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>04 February 2008</u>.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,3-6 and 8-10</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1,3-6 and 8-10</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho

(U.S. 5,943,621).

As per claim 1, Ho teaches a mobile agent management apparatus comprising: an agent

server (figure 2); and a registration server for maintaining location information of mobile agents

(column 4, lines 1-42); wherein the agent server comprises: means for maintaining a history of

movement of each of said mobile agents including a counter for accumulating a count of the net

number of movements for each of said mobile agents (figure 3; column 4, line 56 – column 5,

line 4; column 5, lines 20-35; figure 6; column 7, lines 3-10); and means for periodically

generating updates for updating location information of each of said agents, said requests

including at least a mobile agent identifier and said accumulated number of movements for said

mobile agent, to renew location information at said registration server (column 7, lines 11-26;

column 8, lines 4-35). Ho does not specifically teach that there exists a plurality of agent

servers. It would have been obvious to one of ordinary skill in the art to include a plurality of

agent servers, as this would be a design choice governed by need, for example. If the system

were sufficiently large enough to require multiple agent servers, it would have been an obvious modification to include this teaching. Ho teaches the use of a net number of movements within the different cells, but does not specifically use a gross number of movements. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the net movement number with a gross movement number, because this was a well-known embodiment at the time of the invention (see column 2, lines 42-51). Changing the counting scheme would have been an obvious design choice, rather than a patentable distinction. Ho does not specifically teach the generation of requests to update information. Ho teaches the transmittal and implementation of update information. To modify the invention such that updates take place through requests would have been obvious to one of ordinary skill in the art, as the concept of requesting updates is well known in the art, and would further constitute a design choice to achieve the goal of updating location information. Therefore, such a modification would have been obvious to one of ordinary skill in the art at the time of the invention.

As per claim 3, Ho further teaches that each of the agent servers further comprises comparator means for comparing the count in said counter with a predetermined threshold (figure 2; column 4, line 56 – column 5, line 4).

As per claim 4, Ho further teaches that the request generator of each of said agent servers generates a request to said registration server for updating location information when the count of the accumulated number of movements of a corresponding mobile agent exceeds a predetermined threshold (column 7, line 11-26; column 8, line 4-35).

As per claim 5, Ho further teaches that said registration server comprises at least one register for maintaining accumulated number of movements and locations of each of said mobile

agents in an associated manner and renews said location information of each of said mobile

agents only upon receipt of requests for updating location information associated with a higher

accumulated number of movements (column 7, line 11-26; column 8, line 4-35).

As per claim 6, Ho further teaches a method for managing locations of mobile agents by

using a plurality of agent servers and a registration server for maintaining locations of mobile

agents comprising the steps of: an each of said agent servers (figure 2); maintaining history of

movement of each of said mobile agents including accumulating a count of the number of

movements for each of said mobile agents (figure 3; column 4, line 56 – column 5, line 4;

column 5, lines 20-35; figure 6; column 7, lines 3-10); periodically generating requests for

updating and deleting registries, said requests including at least a mobile agent identifier and said

count of the accumulated number of movements for said mobile agent (figure 3; column 4, line

56 – column 5, line 4; column 5, lines 20-35; figure 6; column 7, lines 3-10); and at said

registration server, renewing location information of each of said mobile agents kept by said

registration server with said requests (column 7, lines 11-26; column 8, lines 4-35).

As per claim 8, Ho further teaches comparing said count of the accumulated number of

movements to a threshold number of movements (Ho: column 5, line 53 – column 6, line 49).

As per claim 9, Ho further teaches that said generating is done when said count of the

accumulated number of movements exceeds said threshold number of movements (Ho: column

5, line 53 – column 6, line 49).

Claim 10 is rejected on the same bases as claim 5, as the instant claim discloses

limitations similar to those of claim 5.

Response to Arguments

Applicant's arguments filed on February 4, 2008 have fully been considered, but are not persuasive.

a. Ho clearly suggests the counting of an accumulated number of gross movements. This is because Ho counts a net number of movements to implement the invention by removing loops of cell visits. This therefore implies Ho's knowledge of **not** removing loops to count a number of movements, since removing loops constitutes an additional task in relation to just counting a gross number of movements. It would be a simple design choice to implement a method where looped movements are not removed. The use of a net movement number is added as a convenience within the Ho system. Because Ho teaches the counting of a net number of movements, one of ordinary skill in the art could easily envision a system where a gross number of movements are used instead. The modification would constitute a simple design choice and not a patentable distinction.

b. In figure 2, Ho teaches a GSMC. This may constitute an agent server. Further, the registration servers may be constituted by the VLR or HLR, for example.

c. Because updates take place in Ho, it would be obvious to include requesting updates. This concept is well known in the art of mobile communication. For an example, please see paragraph 0012 of Ushiki (U.S. 2001/0049282). It would be envisioned by one of ordinary skill in the art to include the concept of location requests to supplement the current system of Ho.

d. The threshold in Ho is dynamic, but it is still predetermined, since the movements are compared against it. Movements occur after a threshold has been determined, so the threshold is then predetermined in relation to the movements.

e. As discussed above, Ho clearly suggests an accumulated number of movements. Update requests are obvious to include, and a history of movements is stored (Figure 4). Therefore, the contents of claims 4, 5, 9, and 10 are fully taught by Ho.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is (571)272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jason Cardone can be reached on 571/272-3933. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tanim Hossain
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